

Learning More about Lipids

Michigan Office of Services to the Aging

Fast facts

1. Fat is an essential nutrient.
2. Fat is the main storage form of energy in the body. Anyone who has tried to lose weight knows that our bodies are great storing fat.
3. Fats are found in many foods and are a dense source of calories. In fact, fat has twice the number of calories as protein and carbohydrate.

1 gram of protein = 4 calories

1 gram of carbohydrate = 4 calories

1 gram of fat = 9 calories

4. Eating a diet high in fat can increase your risk of cardiovascular disease, certain types of cancer and can lead to weight gain.
5. Fat intake should not exceed 30% of your total calories. To calculate just how many grams of fat for a typical 2000 calorie a day diet, follow these steps:

$$2000 \text{ calories} \times 30\% = 600 \text{ fat calories}$$

$$600 \text{ fat calories} \div 9 \text{ calories per gram of fat} = 66 \text{ grams of fat/day}$$

Fat terminology

Lipids -- the fat family including, triglycerides (fats and oils), phospholipids (lecithin), and sterols (cholesterol).

Fats--lipids that are solid at room temperature.

Oils--lipids that are liquid at room temperature.

Triglycerides--the major class of dietary lipids.

Lecithin--a constituent of cell membranes and made in the liver.
Contrary to popular belief, lecithin does not reduce cholesterol levels.

Trans-fatty acids – a type of fat created when liquid fat is hydrogenated or hardened. This type of fat is very good at elevating cholesterol and is found in commercially baked products and fast foods.

Cholesterol--found only in animal foods and made in the liver.
Cholesterol is necessary for the digestion of fats and is involved in the metabolism of vitamin D.

Types of dietary fat

Saturated fats--animal fats, tropical oils, butter, lard.
Raises cholesterol levels in the body

Monounsaturated fats--olive, peanut, canola oils.
Helps lower cholesterol levels in the body

Polyunsaturated fats-- corn, safflower, sunflower oils.
Helps lower cholesterol levels in the body

Why reduce your intake of fat?

- Decrease risk of heart disease.
- Reducing fat in the diet can help with weight control.
- Decrease risk for certain types of cancer such as colon and breast cancer.